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Amendments

In the Claims:

The claims are to be amended as follows:

1-17. (Cancelled)

18. (Currently Amended) A diamond heat spreader comprising:

a chemical vapor deposited diamond layer having an unpolished free surface; and
a covering layer adhered to the free surface of the diamond layer and having a thermal coupling surface exhibiting a roughness and/or a flatness in a range to allow attachment to a thermal interface material, the covering layer having a thickness just enough to cover a roughness of the free surface of the diamond layer such that the thermal ~~covering~~ coupling surface of the covering layer is substantially flat.

19. (Previously presented) The diamond heat spreader of claim 18, wherein the covering layer comprises a layer of metal on the free surface of the diamond layer, the layer of metal defining a polished metal surface.

20. (Currently amended) The diamond heat spreader of claim 18, wherein the covering layer further comprises a final layer on the polished metal surface, the final layer defining the thermal coupling surface.

21. (Original) The diamond heat spreader of claim 20, wherein the final layer comprises a layer made of at least one of Au, Ni and Ag.

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22. (Previously presented) The diamond heat spreader of claim 20, wherein the thermal coupling surface has regions made of different metals.
23. (Previously presented) The diamond heat spreader of claim 19, wherein the covering layer further comprises an adhesion layer disposed directly on the free surface of the diamond layer such that the adhesion layer adheres to the free surface of the diamond layer and supports the layer of metal thereon.
24. (Original) The diamond heat spreader of claim 23, wherein the covering layer further comprises a barrier layer disposed between the adhesion layer and the layer of metal.
25. (Original) A heat spreader package comprising the diamond heat spreader of claim 18, and further including a heat sink thermally coupled to the diamond heat spreader.
26. (Previously presented) The heat spreader package of claim 25, further comprising a load distribution lid thermally coupled to the heat sink and to the diamond heat spreader.

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27. (Original) The heat spreader package of claim 25, further comprising a load distribution perimeter connected to the diamond heat spreader, wherein the diamond heat spreader and the perimeter together form a load distribution lid thermally coupled to the heat sink.

28. (Original) A microelectronic package comprising the heat spreader package of claim 25, and further including a die package having a die and a land grid array thermally and electrically coupled to the die, the heat spreader package being thermally coupled to the die package.

29. (Currently Amended) A diamond heat spreader comprising:
a chemical vapor deposited diamond layer having an unpolished free surface;
means adhered to the free surface of the diamond layer for providing a thermal coupling surface of the heat spreader, the means for providing having a thickness just enough to cover the roughness of the free surface of the diamond layer such that a thermal ~~covering~~ coupling surface of the means for providing is substantially flat.

30. (Cancelled).